

ABSTRACT

An adaptive radio frequency (RF) electromagnetic interference rejection system and method.

An RF information signal having an information signal component and an interfering electromagnetic signal component that has a varying characteristic frequency is delayed by a reference delay time that is equal to a predetermined number of periods of the characteristic frequency to form a delayed RF information signal. The delayed RF information signal is subtracted from the non-delayed RF information signal to form a processed RF information signal in which the information component is substantial and the interfering electromagnetic signal component is negligible. The amplitude of the interfering electromagnetic signal component of the processed RF information signal is constantly monitored. The delay of the delayed RF information signal is varied as the characteristic frequency of the interfering electromagnetic signal component changes so as to maintain the amplitude of the interfering electromagnetic signal component of the processed RF information signal at a minimum level.